Claims.

1.- Optical projection system, comprising a projection lens, illumination optics in front of the projection lens showing a well-defined F# number, and at least one light modulator comprising a plurality of reflective elements, wherein this system shows an optical axis and wherein said illumination optics allow to project light onto the light modulator and said light modulator allows to reflect the light in a controllable manner to different directions, such that ON state light cones, in which light is projected onto the projection lens, as well as OFF state light cones can be formed, wherein said projection lens shows an F# number which is smaller than the F# number of said illumination optics, and wherein the chief ray of the incident light at the light modulator is chosen such that the direction of the chief rays of the obtained ON state light cones differ from the corresponding optical axis, so as to obtain an improved contrast.

2.- Optical projection system as in claim 1, wherein the aperture of the projection lens is matched to the F# number of said illumination optics and is placed eccentric in respect to the optical axis.

3.- Optical projection system as in claim 2, wherein the ON state light cones are located such that at one side they coincide or almost coincide with the edge of the projection lens aperture.

4.- Optical projection system as in claim 2, wherein for further improving the contrast, a non-circular aperture is used.

5.- Optical projection system as in claim 4, wherein the non-circular aperture is a cat-eyed aperture.

6.- Optical projection system as in claim 1, wherein said light modulator is a digital mirror device (DMD).

7.- Optical projection system as in claim 6, wherein said digital mirror device comprises reflective elements which can be flipped between 10° in one direction as well as 10° in the opposite direction.

8.- Optical projection system as in claim 1, wherein the chief ray of the ON state light cone differs from the corresponding optical axis with an angle between 1° and 10°.

9.- Optical projection system as in claim 8, wherein said angle is 4°.

10.- Optical projection system as in claim 1, wherein the chief ray of the incident light extends according to a direction which makes an angle with the optical axis of the projection lens which is between 20° and 30°.

11.- Optical projection system as in claim 1, wherein said illumination optics are designed for use with an aperture with an F# number of 3.0 and wherein a

projection lens is used with an aperture having a F# number of 2.5.

12.- Optical projection system as in claim 1, wherein said projection system consists of an existing system, which is adapted in order to obtain ON state light cones having a chief ray which differs from the optical axis of the projection lens.

13.- Method for using an optical projection system, said projection system comprising a projection lens, illumination optics in front of the projection lens showing a well-defined F# number, and at least one light modulator comprising a plurality of reflective elements, wherein this system shows an optical axis and wherein said illumination optics allow to project light onto the light modulator and said light modulator allows to reflect the light in a controllable manner to different directions, such that ON state light cones, in which light is projected onto the projection lens, as well as OFF state light cones can be formed, wherein said method comprises the steps of using a projection lens which shows an F# number which is smaller than the F# number of said illumination optics, and the step of choosing the chief ray of the incident light at the light modulator such that the direction of the chief ray of the obtained ON state light cones differ from the corresponding optical axis.

14.- Method for using an optical projection system as in claim 13, wherein a non-circular aperture is used, more particularly a cat-eyed aperture.

15.- Method for using an optical projection system as in claim 13, wherein said system in normal use is intended for use with a projection lens with an F#3.0 aperture, whereas, when applying this method, a projection lens is used with an F#2.5 aperture.

16.- Method for using an optical projection system as in claim 13, wherein said method is applied in an existing projection system, whereby to this end the angle of the incident light is changed and the traditional projection lens is replaced by another one with a lower F# number.